DECISION RECORD AND FONSI
EA No. UT-050-090-078
FOR THE MIZPAH PIT
DRUM MINE EXTENSION
JUMBO MINING COMPANY

FONSI: The impacts of this action are not significant and, therefore, an environmental impact statement is not required.

DECISION: Approve the amendment to the Plan of Operations submitted by the Jumbo Mining Company provided that they agree to adopt the mitigating measures identified in EA No. UT-050-090-078. This will permit the Jumbo Mining Company to extract about 200,000 tons of gold bearing ore and about 300,000 tons of waste rock.

RATIONALE: Although the mining activity will remove about 21 acres from the production of vegetation and use of this land as wildlife habitat and for livestock grazing for a period of as much as ten years, the mitigation measures which are to be adopted will result in effective reclamation of the area to be disturbed. The mine will also provide economic benefits to the local economy.

MITIGATION: The following mitigating measures would minimize adverse environmental impacts anticipated with the proposed action.

1. The area of mining will be fenced. The fence will be constructed to meet or exceed the specifications shown on Attachment B of the EA. The fence will use 24 inch woven wire with two strands of barbed wire. The fence will be removed when reclamation is accepted as successful.

2. All waste dumps and any highwalls will be recontoured to a slope of 3:1 or less prior to final reclamation.

3. Soils that have a thickness of 6 inches or more will be salvaged for later use in reclamation except for horizons which are greatly enriched in $CaCO_3$. The soils to be salvaged will be identified jointly by the BLM and a representative of the Company prior to mine construction.

4. The haul roads will be treated with water or a dust suppressant as needed to reduce the amount of dust emitted to the area.

APPROVED BY:

Rex Rowley

Rex Rowley, House Range Area Manager — Date: 4-23-90

EA Number: UT-050-090-078
Serial Number: UT-056-7P

House Range Resource Area
Richfield District Office

Mizpah Pit, Drum Mine Extension

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A. INTRODUCTION

This Environmental Assessment is being prepared on a small surface mine which is proposed by the operator of the Drum Mine. The Drum Mine has been under development since 1981. Mining has occurred in the vicinity for many years prior to that time. The Drum Mine is an active facility located about one mile south of the proposed surface mine. The Drum Mine is also the location of a cyanide heap leach facility for the extraction of gold from ores mined from the Drum Mine and ores mined from private land located a few miles to the north of the proposed facility. No cyanide would be used at the site of the proposed project. Any ore mined from this site would be transported to the existing facility and processed at that location.

Purpose and Need

The proposed action is needed to allow for the development of a gold bearing ore body which has been discovered by a mining claimant. This ore would be developed as part of the holdings of the Jumbo Mining Company. Jumbo Mining Company is the owner and operator of the Drum Mine, which is located nearby the proposed Mizpah Pit.

Conformance with Land Use Plans

The area potentially affected by the Proposed Action was covered in the Resource Management Plan prepared for the House Range Resource area. This plan was approved on October 28, 1987. The Proposed Action conforms with this plan. Environmental Assessment Record UT-050-83-93 dated August 2, 1983 was prepared for the original mining operation and cyanide heap leach facility. This Environmental Assessment is incorporated by reference.

Relationship to Statutes, Regulations, or Other Plans

The Proposed Action is a significant modification to a Plan of Operations filed in 1983 pursuant to 43 CFR 3809.1-7. The 43 CFR 3809 regulations are titled Surface Management of Mining Claims. These regulations were promulgated in order to implement the provisions of the Federal Land Management and Policy Act (FLPMA) which require the Secretary of the Interior to prevent the unnecessary and undue degradation of the public land (43 USC 1701 et. seq.).

In order for this pit to be developed, Jumbo Mining Company will need the approval of the Utah Department of Oil and Gas and Mining. In order for Jumbo Mining Company to process the ore, they will need a permit from the Utah Bureau of Water Pollution Control.

B. PROPOSED ACTION AND ALTERNATIVES

Proposed Action

On March 5, 1990, the House Range Resource Area received an amendment to the Plan of Operations for the Drum Mine. This Plan of Operation is serialized as

UT-056-7P. Drum Mine is currently owned and operated by Jumbo Mining Company (Company). The existing mine is located in T. 15 S., R. 10 W., Section 7. approximately 180 acres have been disturbed at the site of the existing mine. The Company controls some private land which they are mining to the north of the Drum Mine.

The Company proposes to build 1,100 linear feet of haul road to a proposed mining area of approximately 20 acres. The total area which would be disturbed is about 21 acres. This new disturbance is proposed for T. 15 S., R. 10 W., Section 6. The haul road would be constructed by upgrading an existing access to a width of approximately 20 feet. This haul road would connect to the existing road network. The area of 21 acres would be mined, covered with waste rock, or covered with soil stockpiles. About 200,000 tons of ore would be removed from the site to be processed, by cyanide heap leach, at the present facilities associated with the Drum Mine. Approximately 300,000 tons of waste rock would be moved and disposed of at the site. The open pit would be backfilled with waste rock as mining progresses to the extent it is practical to do so (personal communication, David Hartshorn, March 1990). The mining activity would last from about June of 1990 until December of 1993.

Reclamation would begin at the completion of mining. The Company proposes to scarify the tops of the waste dumps, mine and roadways. The scarified areas would be seeded with a seed mixture to be determined at the time of seeding. Topsoil would be salvaged only if it were encountered during mining operations; however, the Company does not anticipate significant quantities to be encountered. Salvaged topsoil would be applied to disturbed areas prior to seeding. Waste dumps would be left at the angle of repose. A protective berm would be placed at the top of the highwall. Because of the environmental conditions at this location it may take as many as seven years after the completion of mining to establish a successful stand of perennial vegetation.

No Action Alternative

In the No Action Alternative the amendment to the Plan of Operations would be rejected. The BLM may not absolutely forbid mining of, or totally bar access to, a valid mining claim (Southwest Resource Council, 96 IBLA 105, 120 (1987)). In order to accept the No Action Alternative, BLM would have to show that the claims proposed for mining are not valid and contest the claims. There presently is no basis to suspect that the claims proposed for mining are not valid. This is because extensive evidence of mineralization has been shown in nearby areas. Assay data have not been provided to the BLM; however, geologic inference suggests that the area proposed for mining is mineralized. In this case it is appropriate to assume that the claims are valid.

C. AFFECTED ENVIRONMENT

1. General Setting

The proposed mine is located in the Little Drum Mountains in Section 6, T. 15 S., R. 10 W., SLBM. The area of the proposed mine is shown in Figure 1. The Little Drum Mountains are located within the eastern portion of the Basin and Range physiographic province. The climate is semiarid to arid, with hot dry summers and cool winters. Temperature extremes range from a low of -32 degrees F. to a high of 106 degrees F.. Most precipitation occurs in winter and spring.

2. Affected Resources

a. Atmospheric Resources

The air quality is generally good. Annual average precipitation is about 8 inches. Under certain conditions, fugitive dust can generate local air quality problems. This generally occurs during dry weather near unimproved and gravel surfaced roads.

b. Topography

The Little Drum Mountains have a maximum relief of about 1500 feet. They are a complexly faulted horst in the Basin and Range. Slopes average about 20% in the area to be mined, however, steeper slopes and cliffs occur in the general vicinity. The elevation of the site proposed for mining ranges from 6200 to 6400 feet above mean sea level.

c. Water Resources

There are no known perennial surface water sources or streams within a mile of the area proposed for mining. Very little ground water has been intercepted in the exploration drilling conducted in the area. There is some evidence that small perched aquifers may occur below 300 feet in depth from the surface. The quality and volume of these waters is unknown. There are no water wells within a mile of the site proposed for mining.

d. Soils

The soils in the area proposed for mining have not been mapped. The soils at the nearby mine site were described in the original Plan of Operations submitted in 1983. The soils at this site appear to be similar in character to those described in that plan. Those soils were dominantly lithic (less than 10 inches to bedrock). Soils in drainage ways were deep (greater than 60 inches to bedrock) and skeletal (more than 35% gravel by volume). The soils are mildly to strongly alkaline. The erosion potential of this site is low to moderate. Slopes would give a moderate erosion potential, but the large amount of coarse fragments in the soil and the low rain fall of the area lower that potential.

e. Vegetation

No threatened, endangered, or sensitive species are known to occur at the site of the proposed mine. Much of the area which would be mined has been disturbed by mineral exploration conducted under various notices of intent and not yet reclaimed. The site is similar in character to the Semidesert Stony Hill Range site which occurs at the existing mine. A site at the existing mine had about 25% plant cover that was dominantly shrubs with sxcatered grass plants. The shrubs were rabbit brush (Chrysothamus viscidiflorus), ephedra (Ephedra nevadensis), black sage (Artemesia nova), shadscale (Atriplex confertifolia), and horsebrush (Tetrademia glabrata). The dominant grass is western wheatgrass (Agrpyron smithii). There were also scattered juniper trees (Juniperus Utahensis). The vegetation on the site to be mined is similar to this.

f. Wildlife Resources

No threatened, endangered, or sensitive animal species are known to be resident at the site of the proposed mine. Mule deer, antelope and chukar may occur or migrate through the area. Other wildlife species which occur at the site include rabbits, coyote, mice, various birds and reptiles.

g. Visual Resource Management

The area is within Visual Resource Management Class IV. Although a project may be in contrast with the surrounding landscape, it still must repeat the basic elements of line, form, color and texture.

h. Archeological Resources

There are no known archeological sites or resources in the area proposed for disturbance. A cultural resource inventory of the area was completed on April 10, 1990. No cultural resource sites were found during this inventory. The report of these findings is shown as Attachment A.

i. Wilderness Resources

None of the land proposed for disturbance is within or nearby a Wilderness Study Area or a designated Wilderness Area.

j. Land Use

The area has historically been used for mining exploration and livestock grazing. Mines have been worked in the vicinity at various times over the past century. The principal livestock use is sheep grazing during the winter. The area is also used for dispersed recreation activities which include chukar and dove hunting.

k. Livestock Grazing

The area proposed for mining is within the Lady Laird Grazing Allotment. The Lady Laird Allotment contains 53,797 acres of federal land. It has a current period of use from November 1 through April 30 and is used for sheep. The active preference is 4,830 Animal Unit Months (AUMs). An AUM is the equivalent of grazing 5 sheep for one month. The average actual use for this allotment is 2,415 AUMs. The allotment has been identified in the House Range RMP for monitoring and/or adjustment of livestock numbers. Overall the allotment has 11 acres per active preference AUM and 22 acres per average actual use AUM.

D. ENVIRONMENTAL CONSEQUENCES

1. Proposed Action

a. Environmental Impacts

(1). Atmospheric Resources

The mining operation would generate dust during mining and the hauling of ore. Some emissions would also occur from vehicles.

(2). Topography

The topography at the site of the mine would be permanently altered. The highwall would be nearly vertical and the waste rock dumps would have a slope at the angle of repose (approximately 1:1). This would have an unnatural appearance even after the reestablishment of perennial vegetation.

(3). Water Resources

There would be no impact to water resources.

(4). Soils

Soils that were not salvaged on the 21 acres would be lost. Soils that would be respread during reclamation would be more shallow than naturally occurring soils. The waste rock dumps would be similar to deep soils found on alluvial fans in the general area. All soil horizons would be interrupted. The productivity of the respread soils would be about the same as predisturbance productivity after reclamation is complete. The areas where no soil was respread would be less productive than naturally occurring areas.

(5). Vegetation

Vegetation would be removed from the 21 acre project area. It could take about 10 years to mine the site and reestablish perennial vegetation. The seeding proposed by the operator would ensure that a source of desirable plant materials would be available: however, the rate of establishment is effected

by the availability of moisture. Should dry years occur after seeding, then more time would be needed for the establishment of vegetation than if wet years were to occur.

Young succulent plants are favored by both wildlife and livestock. Young plants are also less able to sustain grazing pressure than are mature plants. The reclamation seedings could be lost if livestock and wildlife are not excluded from the area during plant establishment.

On the steep slopes of the highwall and the waste rock dumps, considerably more than ten years may be needed to establish perennial vegetation. This would also be true of areas where no soil was respread after mining. Productivity of the site would be less than predisturbance productivity on these areas. The productivity of the other areas would be about the same after mining and reclamation is complete as it is prior to mining.

(6). Wildlife Resources

Habitat would be removed from wildlife use for about 10 years on the 21 acres that would be disturbed. Some wildlife mortalities could occur should wildlife enter the area during mining and hauling activities. After reclamation is completed, wildlife should be able to reoccupy the area successfully.

(7). Visual Resource Management

In order to meet Visual Resource Management Class IV objectives, the project must conform to the surrounding landscape. This will require a minimum of 3:1 slopes on dump areas and the headwall. Without this, impacts to visual resources would occur.

(8). Archeological Resources

There would be no impacts to archeological resources as a result of the proposed mine project. If an archeological resource is encountered during mining, the operator is required by regulations to cease operation and notify the BLM (43 CFR 3809.2-2(e)).

(9). Wilderness Resources

There would be no impact to wilderness resources as a result of the proposed mining activities.

(10). Land Use

The 21 acre area would be unavailable for livestock for approximately 10 years. Some livestock mortalities could occur if livestock were to enter the area of mining activity. The area would be productively used for mining for approximately 4 years. The mining activity would provide as many as 25 jobs during full development. Recreation use would move to other nearby areas until mining was complete.

(11). Livestock Grazing

One or two AUMs would be lost during the period of mining from this allotment. This is less than one tenth of one percent of the average actual use of this allotment. The BLM presently sells AUMs at the rate of $1.81 per AUM. The impact of the proposed mining on livestock grazing is insignificant should the hazard posed by the pit to animals be mitigated.

b. Mitigating Measures

(1). The area of mining activity will be fenced. The fence will be constructed to meet or exceed the specification shown on Attachment B. The fence will use 24 inch woven wire with two strands of barbed wire. This fence will be removed when reclamation is accepted as successful.

(2). All waste dumps and any highwalls will be recontoured to a slope of 3:1 or less prior to final reclamation.

(3). Soils that have a thickness of 10 inches or more will be salvaged for later use in reclamation except for horizons which are greatly enriched in CaCO3. The soils to be salvaged will be identified jointly by the BLM and a representative of the Company prior to mine construction.

(4). The haul roads will be treated with water or a dust suppressant as needed to reduce the amount of dust emitted to the area.

The mitigation measures would greatly reduce or eliminate the impacts identified. Dust control measures would reduce the amount of fugitive dust emitted by the project. The visual impacts related to the change in topography would be less because slopes of 3:1 or less would exist after reclamation. These slopes would greatly reduce the contrast between the mined area and the undisturbed landscape surrounding it. Steep slopes are also more difficult to reclaim than are more moderate slopes. A greater amount of vegetation and more rapid establishment of plant would occur with the mitigation measures than without them. The fence would reduce the likelihood that wildlife or livestock mortalities would occur due to mining. The presence of the fence around the project area would also enhance reclamation success. Because more soil would be salvaged with the mitigation than without it, the productivity of the reclaimed surface should be greater.

c. Residual Impacts

The ore that would be mined would be removed. Productivity of the vegetation would be reduced for the duration of the project and the length of time needed for complete reclamation. Some dust would be emitted even with the use of dust suppressants or water.

2. No Action Alternative

Under the No Action Alternative none of the impacts described above would occur. At this time there is no legal basis for accepting the No Action alternative.

CONSULTATION AND COORDINATION

David Hartshorn, Mine Manager, Drum Mine, Jumbo Mining Company.
E. B. King, President, Jumbo Mining Company.
D. Wayne Hedberg, Utah Division of Oil, Gas and Mining
Mack Crofts, Utah Department of Health, Bureau of Water Pollution Control
Jerry Reagan, Millard County Planning and Zoning

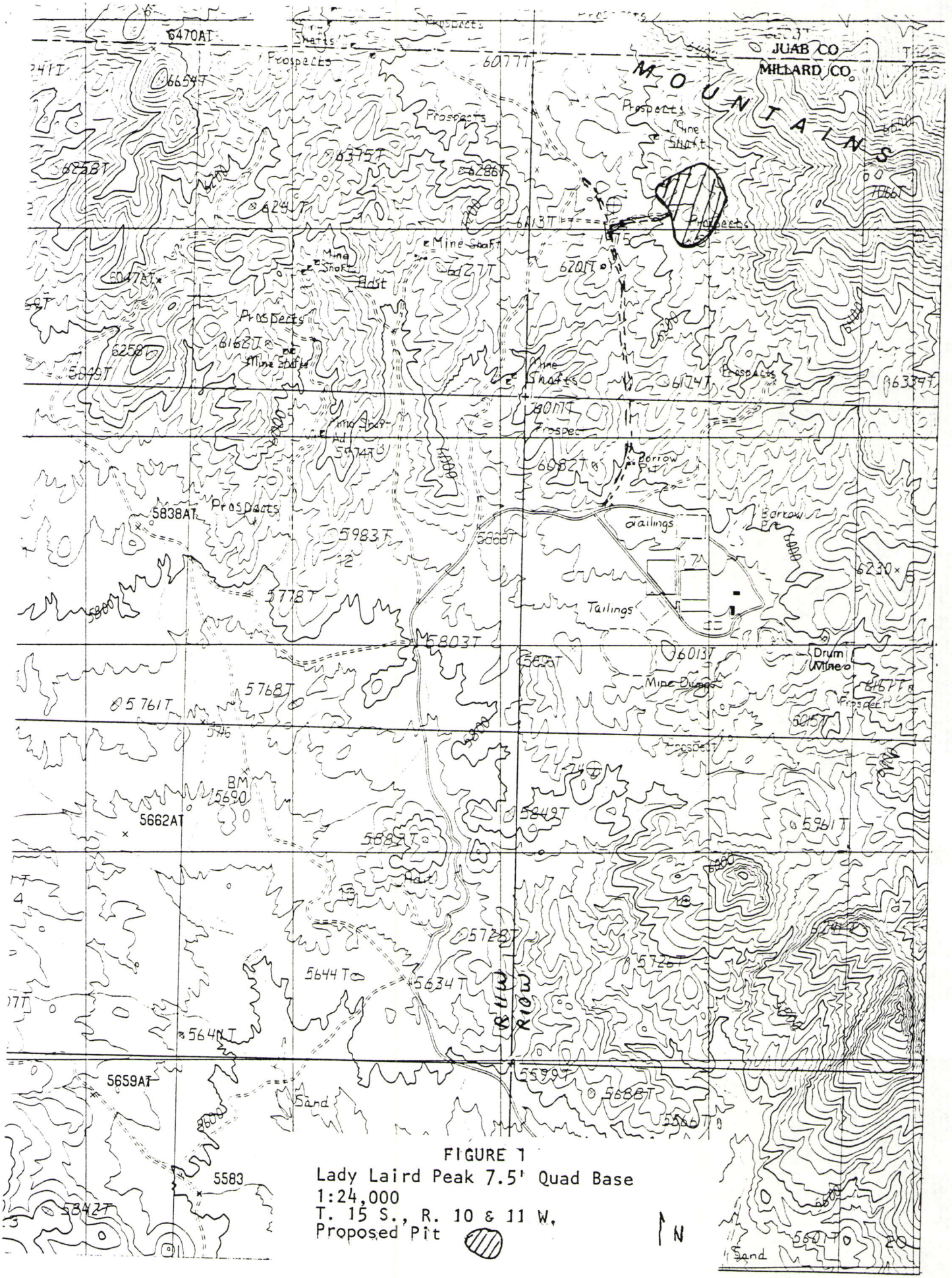

FIGURE 1
Lady Laird Peak 7.5' Quad Base
1:24,000
T. 15 S., R. 10 & 11 W.
Proposed Pit

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